DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 464

Application (Denied ✓
(~~Withdrawn~~
(After disposition, delete items not applicable)

Contract (Terminated - not Certified
(Cancelled
(Terminated - Certified
(Royalty Agreement

This is the official contract file containing all official records of the project. The records contained in the files are checked and are arranged in this order:

Left Side

Interim Royalty Audits
Reports of Royalty Review
Certification of Discovery
Certificate of Audit (Final)
Interim Audit(s)
Report of Review
Termination Notice or Agreement
Recision Notice
Assignment of Contract
Contract Amendments (latest on top)
Contract with all exhibits and annexes
Owner's Consent to Lien
Subordination Agreement
Leases and assignments of leases
✓ Application and attachments
(3) Envelope for maps

Right Side

Project summary
Work completed analysis
All other material is filed in chronological order with correspondence including the following reports as checked:

Final Field Team Report (Tab)
Operator's Final Report
(2R) Interim Reports
(2R) Operator's monthly reports and all attachments (latest on top)
On-site Exam Report(s) (Tab)
(4) Settlement Sheets

When the volume of records is expected to warrant additional folders, or when convenience of reference warrants separate folders for certain records, they should be set up in this order:

Left Side

Folder No. 2: (In chron. order)
Interim Summary Reports by W. O. Engineers

Right Side

Operator's Semi-Annual Report for Certified Project, Field Team Interim Reports, Operator's Monthly Report with transmittal, narrative, maps, and Field Team review.

Folder No. 3: Maps (Use pocket folder or envelope. Fold maps with title block out and show reference to related document or correspondence.)

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

~~Record Report in folder~~

9774

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
224 New Customhouse
Denver 2, Colorado

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 28 1957

DATE	INITIALS	CODE
DMEA		

February 26, 1957

Memorandum

To: Secretary to the Operating Committee,

From: DMEA Field Team, Region III

Subject: Application for DMEA Aid (Uranium) Mid-Continent Uranium Corp. (John Group of claims) Grand County, Utah

Enclosed are the original and one copy of the subject application in the amount of $50,869.00. One copy of the application is being forwarded to the Grand Junction office, DMEA, and one copy is being retained in our file.

The Applicant proposes a general diamond core drilling program of two stages; the second stage contingent upon the results obtained from Stage I.

DMEA Field Team, Region III

E. N. Harshman

By E. N. Harshman
Acting Executive Officer

Enclosures

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DATE	INITIALS	CODE

February 23, 1957

DMEA
DEPARTMENT OF THE INTERIOR
FEB 25 1957
REGION III
DENVER, COLORADO

Mr. W. M. Traver
Executive Officer, DMEA
Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Dear Mr. Traver,

Attached is an application in quadruplicate for financial assistance for an exploration project to determine the uranium potential of the John Group of claims. The John Group comprises nine claims located in the Yellow Cat area, Thompson district, Grand County, Utah.

As part of the application there is attached four copies of a report, February 1957, on the John Group of nine claims. Also included are one copy of the three lowest drilling bids received. The Estimate of Drilling Costs are based on the bid received by B. H. Mott & Sons, Inc.

The application is for $50,869.00 to be expended on an exploration project - Mid-Continent contributing 25 percent of this amount.

Yours very truly,

MID-CONTINENT URANIUM CORP.

Coy M. Mobley

Coy M. Mobley, Geologist

Encl.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

RECEIVED FEB 28 1957 DMEA

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

DMEA
DEPARTMENT OF THE INTERIOR
FEB 25 1957
REGION III
DENVER, COLORADO

Not to be filled in by applicant

Docket No. 4664
Metal or Mineral Uranium
Date Received 2-28-57
Estimated Cost $50,869.00
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Mid-Continent Uranium Corp.
204-205 Uranium Center Building
Grand Junction, Colorado

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized. Refer to attached sheet, page 1

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. Attached sheet, page 1

(*d*) If a partnership, add to the above statement the names and addresses of all partners. Not applicable

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract
Refer to attached report, page 15

(*b*) State any mine name by which the property is known. John Group

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise
Refer to attached report, pages 15, 16

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. Not applicable

(*e*) If you own the land, describe any liens or encumbrances on it
Refer to attached report, pages 15, 16

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Refer to attached report, page 15

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes. Report pp 16-19; sheet page 1

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. Report pp 19, 20

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you. Answered in detail in attached report

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. Refer to attached report, pages 1, 2, 3.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.
Refer to attached report, pages 2, 3.

16—66551-1

5. *The exploration project.*—State the mineral or minerals for which you wish to explore Uranium

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc. **Answered in detail in attached report, pages 21-24**

(*c*) The work will start within 30 days and be completed within 6 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations. **Refer to attached sheets**

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.). **Refer to attached report, page 22**

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants. **Attached report, page 22**

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel. **Refer to attached report, page 22**

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be. **Refer to attached report, page 23**

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project. **Not applicable**

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project. **None**

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes. **Refer to attached report, page 23**

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above. **Attached report, page 23**

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? **Yes**

(*b*) How do you propose to furnish your share of the costs?

[X] Money [ ] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated February 23, 1957

Mid-Continent Uranium Corp.
204-205 Uranium Center Building
Grand Junction, Colorado

(Applicant)

By Norman E. Ebbley

Norman E. Ebbley, Vice President
and General Manager

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

MF - 103

Mid-Continent Uranium Corp.
204-205 Uranium Center Building
Grand Junction, Colorado

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1. (b) A Corporation organized and existing under the laws of the State of Colorado.

1. (c) President, D. Lew Williams, Norwood, Colorado.

Vice President and General Manager, Norman E. Ebbley
204-205 Uranium Center Building
Grand Junction, Colorado

Secretary-Treasurer, Mark D. Dunn, 728 Symes Building
Denver, Colorado

4. (a) Mine workings are accessible for examination.

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D M E A
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DATE	INITIALS	CODE

D. LEW WILLIAMS
Norwood
Colorado

EXPERIENCE RECORD

At the present, son Roger Williams operates the applicant's ranching interests, while the applicant is confining his activities entirely to uranium mining.

1954 to the present time:

President, director, and one of the original founders of Mid-Continent Uranium Corp.

1948 to the present time:

Director and one of the original organizers of the Uranium Ore Producers Association.

1942 to the present time:

Director of the Southwestern Water Conservation Board.

1938 to 1955:

Elected to the State Senate in 1938, and held this post until 1955.

1936 to the present time:

Staked and purchased uranium mining claims in the Bull Canyon area in 1936 and has operated these properties until the present time.

1933 to 1953:

President of the Farmers Water Development Company.

1932 to 1936:

Elected County Commissioner in 1932, Montrose County. Was in charge of road construction in western Montrose County. Built State Highway 141 from Uravan north to Mesa County line, as well as many of the mine roads in Montrose County.

1928 to 1954:

Director of the National Farm Loan Association.

1919 to 1932:

First Staked and mined uranium-vanadium claims in 1919. Mined intermittently along with ranching and sawmill work until 1932.

NORMAN E. EBBLEY
Box 883
Grand Junction, Colorado

EXPERIENCE RECORD

January 1954 to the present time:

Vice-President and General Manager of Mid-Continent Uranium Corp. in joint charge of exploration, development, and mining operations with Robert Williams, a director of the corporation. This work consists of property examination and evaluation, exploratory drilling, sub-leasing supervision, report writing, development and mining of uranium ores. Vice-President and director of the Uranium Ore Producers Association.

January 1953 to January 1954:

Consulting Engineer for the Uranium Ore Producers Association, an organization of the independent operators in the uranium-vanadium fields in Colorado, Arizona, Utah, New Mexico, and South Dakota. This work consisted mainly of examination and mining consulting.

October 1951 to January 1953:

General Manager of the Skidmore Mining Company. This organization mined uranium-vanadium ore in the Colorado Plateau area. During this period the production rate was increased from an average of 200 tons to an excess of 1,000 tons per month. The General Manager was directly responsible for all phases of the operation and had from 30 to 35 men working under him. In addition he was responsible for all examination and exploration work on properties under lease or option to purchase by the Skidmore Mining Company.

March 1949 to October 1951:

General Manager of the Camp Bird Mine (for King Lease, Inc.) at Ouray, Colorado. The operation consisted of breaking between 250 and 300 tons per day in mining lead, zinc, copper, silver, and gold ore. The mining method installed was a combination of shrinkage stopes and mechanical loading from draw points. The mine operated a 150-ton per day concentrator. The Manager was directly responsible for all phases of the underground and milling operations. Both phases of the operation employed from 60 to 100 men.

November 1947 to March 1949:

Mining Engineer for the U. S. Geological Survey in charge of exploration on the Colorado Plateau Project. Responsible for all physical phases of the diamond drilling exploration and prepared estimates of ore reserves based on drilling and sampling data and prepared technical reports covering the project. Supervised subordinate professional, clerical and sub-professional personnel and worked without assistance in certain assignments of specialized scientific and technical difficulty. Rating P-5.

Norman E. Ebbley
Box 883
Grand Junction, Colorado

March 1942 to July 1947:

Various duties of a Bureau of Mines project engineer. Sampling of old properties, investigation of old mine shafts in the Leadville, Colorado area, supervision of diamond and churn drilling operation, retimbering and maintenance of Leadville Drainage Tunnel, report writing and mapping. Four years in Alaska and two and one-half in Colorado. P-4 rating.

November 1938 to March 1942:

Geologist, mining engineer, and construction foreman for the various properties owned and operated by the Day Mines, Inc., Wallace, Idaho. In charge of general outside construction work, road construction, sewer line construction, building construction, etc. In charge of diamond drill procedure, underground mapping and geology.

June 1937 to November 1938 (Overlap job):

Acquired leases on various mining properties and subletting to other operators in Shoshone County, Idaho. In full charge of all operations.

September 1936 to November 1937 (Overlap job):

Had mining drift contract for 3,000 feet of tunnel and drift from the Callahan Lead Zinc Company on their Vulcan Tunnel job at Wallace, Idaho.

June 1936 to September 1936 (Overlap job):

Engineer in charge of drilling and estimating on placer gold prospects at Wallace, Idaho for the Day Mines, Inc.

1936 to 1938 (Overlap job):

Shoshone County Engineer (elective job).

March 1934 to June 1936:

Mining Engineer and geologist for the Nabesna Gold Mining Company in Alaska. Also did the diamond drill work at the mine as well as part time shifter.

November 1933 to March 1934:

Flood control engineer surveying and estimating flood damage in Shoshone County, Idaho.

NORMAN E. EBBLEY
Box 883
Grand Junction, Colorado

1930 to 1933:

During the summers of this period worked in the placer field in Alaska. Work consisted of churn-drilling, estimating and common laborer. Finished college spring of 1933. During these years I served at times as a qualified blacksmith, electric-arc and acetylene welder, explosive engineer, bulldozer and shovel operator.

Graduate of the University of Washington, Seattle, Washington, with Bachelor of Science degrees in Mining Engineering and Geology. Registered Professional Engineer in the state of Colorado since 1948.

ROBERT E. WILLIAMS
201 Texas Avenue
Grand Junction, Colorado

EXPERIENCE RECORD

January 1955 to the present time:

Director and General Superintendent for Mid-Continent Uranium Corp., Grand Junction, Colorado

November 1953 to January 1955:

General Manager for the Four Corners Uranium Corporation, in charge of the McKee properties in the Bull Canyon area. This operation produced approximately 1,000 tons of uranium ore per month. A drilling exploration program was carried out; the first contract being for 130,000 feet.

January 1951 to November 1953:

Manager in charge of the McKee uranium mines under a leasing program.

1948 through 1950:

Operated a sawmill in the Norwood area for self.

1947 to first of 1948:

Operated the Columbus Mine in Silverton, Colorado under lease. Lead, zinc, silver, gold, copper property.

1945 through 1946:

Operated sawmill in the Norwood area for self.

1937 through 1944:

Worked for the Telluride Mines Company as shift boss.

Year 1936:

Leased from the Golden Cycle Corporation at Cripple Creek, Colorado.

Year 1935:

Leased at the Smuggler-Union Mine at Telluride, Colorado.

Year 1934:

Contract mining at the Pride of the West Mine at Silverton, Colorado.

ROBERT E. WILLIAMS
201 Texas Avenue
Grand Junction, Colorado

1932 and 1933:

Leased from the Telluride Mines Company, at Telluride, Colorado.

COY M. MOBLEY
2813 North Avenue
Grand Junction, Colorado

EXPERIENCE RECORD

May 1955 to the present time:

Geologist, Mid-Continent Uranium Corp., Grand Junction, Colorado. Work consists of peoperty examination and evaluation, report writing, mine mapping, surveying, calculating ore reserves, logging diamond drill core, sampling core for uranium-vanadium ore, planning exploratory drilling programs and evaluating drilling results.

July 1951 to May 1955

Geologist, U. S. Geological Survey, Mineral Deposits Branch, Grand Junction, Colorado. Work consisted of sampling and logging cuttings on a wagon drill, selection of drill sites on areas containing selenium-indicator plants, mine mapping, surveying, writing monthly geologic reports, logging diamond-drill core, sampling core for uranium-vanadium ore, calculating ore reserves, planning exploratory drilling programs and evaluating drilling results. Project chief for two years, in charge of three geologists.

April 1951 to July 1951:

Geologist, U. S. Geological Survey, Greund Water Branch, Tacoma, Washington. Work consisted of sampling water from wells in Spokane County and making hardness, chloride, alkalinity and electrical conductivity tests of the water samples.

February 1951 to April 1951:

Worked as service station operator, Tacoma, Washington.

February 1947 to February 1951:

Graduated from College of Puget Sound, Tacoma, Washington, February, 1951 with Bachelor of Science degree, Geology major.

MID-CONTINENT URANIUM CORP.

BID AND SCHEDULE OF UNIT PRICES FOR EXPLORATORY DRILLING

YELLOW CAT NO. 3 DRILLING PROJECT

Mid-Continent Uranium Corp. owns an undivided 80% of the John Group of claims in the Yellow Cat area, Grand County, Utah, and hereafter will be referred to as the Company. The Company is applying for a Defense Minerals Exploration Administration loan to drill a minimum of 67 holes, totaling about 12,060 feet, and a maximum of 182 holes, totaling about 32,760 feet. It is understood that the quantities listed below are only estimated amounts to establish maximum allowable costs for the Company's DMEA application and they are in no way binding upon the Company or contractor. Please enter your bid unit prices for all items below.

CORE DRILLING (AX cores required)

$2.75/ft.

1. From Surface to 100 ft. Estimated amount: 800 ft. $ 2.50 per ft. $2,000.00
2. From 100 ft. to 200 ft. Estimated amount: 2,600 ft. $ 2.75 per ft. $7,150.00
3. From 200 ft. to 300 ft. Estimated amount: 820 ft. $ 3.00 per ft. $2,460.00

NON-CORE DRILLING (no cores required)

$1.85/ft

4. From Surface to 100 ft. Estimated amount: 5,900 ft. $ 1.80 per ft. 10,620.00
5. From 100 ft. to 200 ft. Estimated amount: 1,940 ft. $ 2.00 per ft. 3,880.00

$12.00/hr.

6. DELAYS: When delays are caused by the Company, the Contractor shall be paid therefor at the rate of $ 12.00 per hour, per drill. Estimated delay time: 67 hours. 804.00

$26,914.00
2.23/ft.

For further information, contact Mid-Continent Uranium Corp., 201 Uranium Center Building, Grand Junction, Colorado, telephone 3904. Address bids to same address. Bids will be opened at 10:00 A. M., May 1, 1956.

B.H. MOTT & SONS, INC.	By John C. McEldowney	April 30, 1956
Drilling Company	Signature of Bidder	Date

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MAY 1 1956
MID-CONTINENT
URANIUM CORP.

MID-CONTINENT URANIUM CORP.

BID AND SCHEDULE OF UNIT PRICES FOR EXPLORATORY DRILLING

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CORE DRILLING (AX cores required)

$3.25/ft

1. From Surface to 100 ft. Estimated amount: 800 ft. $ 3.00 per ft. $2,400.00
2. From 100 ft. to 200 ft. Estimated amount: 2,600 ft. $ 3.25 per ft. 8,450.00
3. From 200 ft. to 300 ft. Estimated amount: 820 ft. $ 3.50 per ft. 2,870.00

NON-CORE DRILLING (no cores required)

$1.60/ft

4. From Surface to 100 ft. Estimated amount: 5,900 ft. $ 1.60 per ft. 9,440.00
5. From 100 ft. to 200 ft. Estimated amount: 1,940 ft. $ 1.60 per ft. 3,104.00

12.00/hr

6. DELAYS: When delays are caused by the Company, the Contractor shall be paid therefor at the rate of $ 12.00 per hour, per drill. Estimated delay time: 67 hours. 804.00

$27,068.00
2.24/ft.

For further information, contact Mid-Continent Uranium Corp., 201 Uranium Center Building, Grand Junction, Colorado, telephone 3904. Address bids to same address. Bids will be opened at 10:00 A. M., May 1, 1956.

SPRAGUE & HENWOOD, INC. By [signature] 4/30/56
Drilling Company — Signature of Bidder — Date

Received April 30, 1956

MID-CONTINENT URANIUM CORP.

BID AND SCHEDULE OF UNIT PRICES FOR EXPLORATORY DRILLING

YELLOW CAT NO. 3 DRILLING PROJECT

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CORE DRILLING (AX cores required)

2.96/ft.

1. From Surface to 100 ft. Estimated amount: 800 ft. $ 2.45 per ft. $1960.00
2. From 100 ft. to 200 ft. Estimated amount: 2,600 ft. $ 2.90 per ft. 7,540.00
3. From 200 ft. to 300 ft. Estimated amount: 820 ft. $ 3.65 per ft. 2,993.00

NON-CORE DRILLING (no cores required)

2.00/ft

4. From Surface to 100 ft. Estimated amount: 5,900 ft. $ 1.95 per ft. 11,505.00
5. From 100 ft. to 200 ft. Estimated amount: 1,940 ft. $ 2.15 per ft. 4,171.00

12.00/hr.

6. DELAYS: When delays are caused by the Company, the Contractor shall be paid therefor at the rate of $ 12.00 per hour, per drill. Estimated delay time: 67 hours. 804.00

28,973.00

2.40/ft.

For further information, contact Mid-Continent Uranium Corp., 201 Uranium Center Building, Grand Junction, Colorado, telephone 3904. Address bids to same address. Bids will be opened at 10:00 A. M., May 1, 1956.

Minerals Engineering Company	By Edson Foster	4/30/56
Drilling Company	Signature of Bidder	Date

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D.M.E.A.
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DATE	INITIALS	CODE

Report on

THE JOHN GROUP OF NINE CLAIMS

in the

THOMPSON DISTRICT, GRAND COUNTY, UTAH

Comprising 184 Acres

in the

Yellow Cat Area

MID-CONTINENT URANIUM CORP.

ENGINEERING STAFF

February 1957

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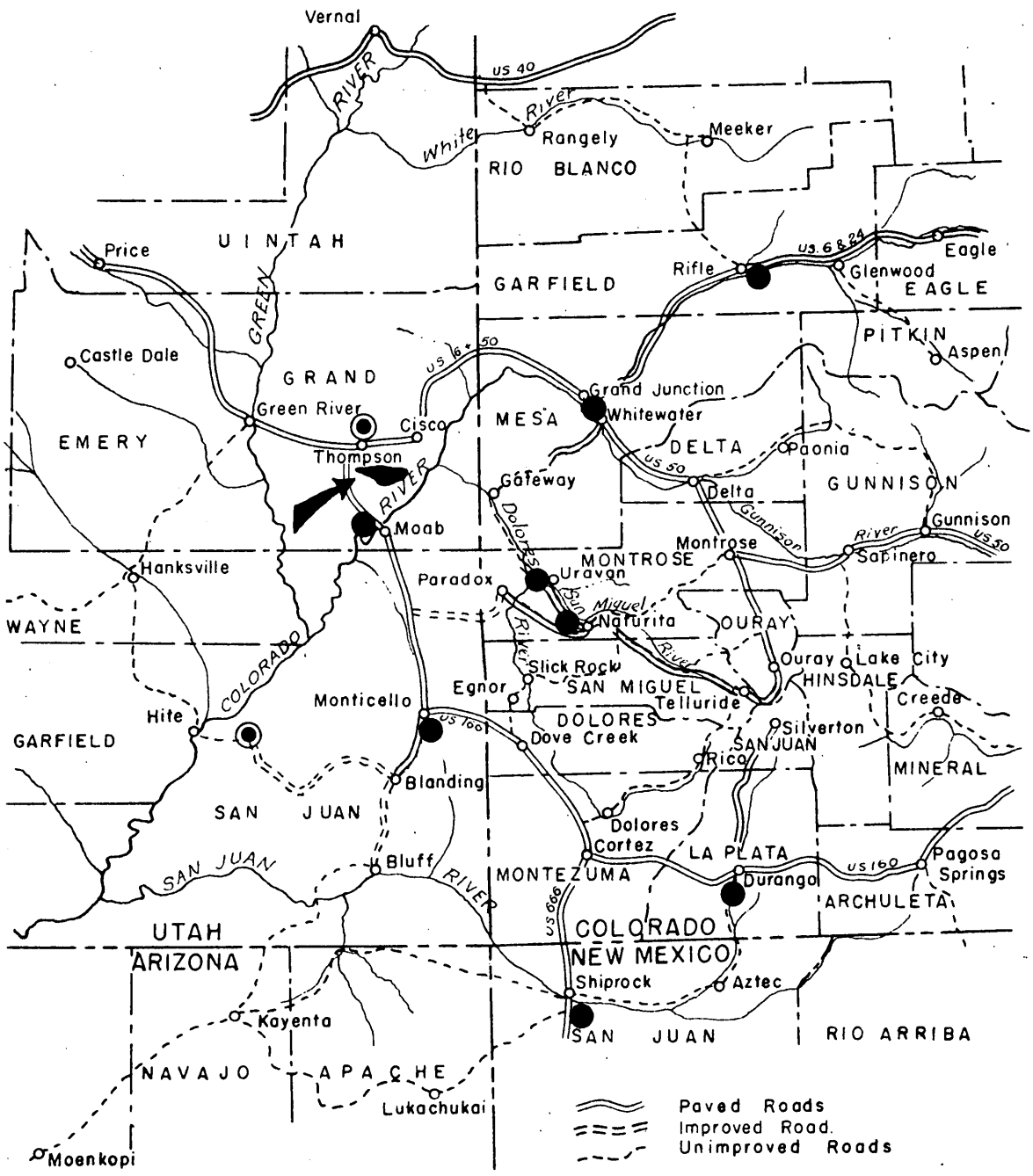
INTRODUCTION

This report describes the uranium-vanadium ore reserves and potential of nine mining claims totalling 183.78 acres, located in the Thompson district, Grand County, Utah. Included in the report is a description of the geologic features of the area with accompanying geologic maps. In addition ore reserves calculations are given for the John Group of claims. An exploratory drilling program has been planned for the John Group with estimate of costs covering the proposed program. A Defense Minerals Exploration Administration application for financial aid has been filed to help finance this program.

Drilling to date on the John Group has established the presence of a major fourth sandstone channel containing uranium-vanadium ore deposits. Isopach mapping of the fourth sandstone shows that two favorable channels are present on the John Group, and it is apparent that further drilling endeavoring to explore these channels is warranted. Recent discoveries of ore deposits in other fourth sandstone channels in the Yellow Cat area foreshadows an economic revival of the district. Recently drilled ore bodies, now being mined, indicate proven reserves several times greater than the total past production from the Thompson district.

LOCATION AND ACCESSIBILITY

The Thompson district has its long axis east and west and lies approximately six miles south of the road running between Cisco and Thompson, Utah. Refer to Index Map, Figure No. 1. The area embraces about 200 square miles of territory in the Canyon Lands



INDEX MAP OF COLORADO PLATEAU

FIG. 1 LOCATION OF THOMPSON AREA

Subdivision of the Colorado Plateau. At the present time there are two partially graveled roads and one new all-weather graveled road running from the main east-west highway south into the Yellow Cat area.

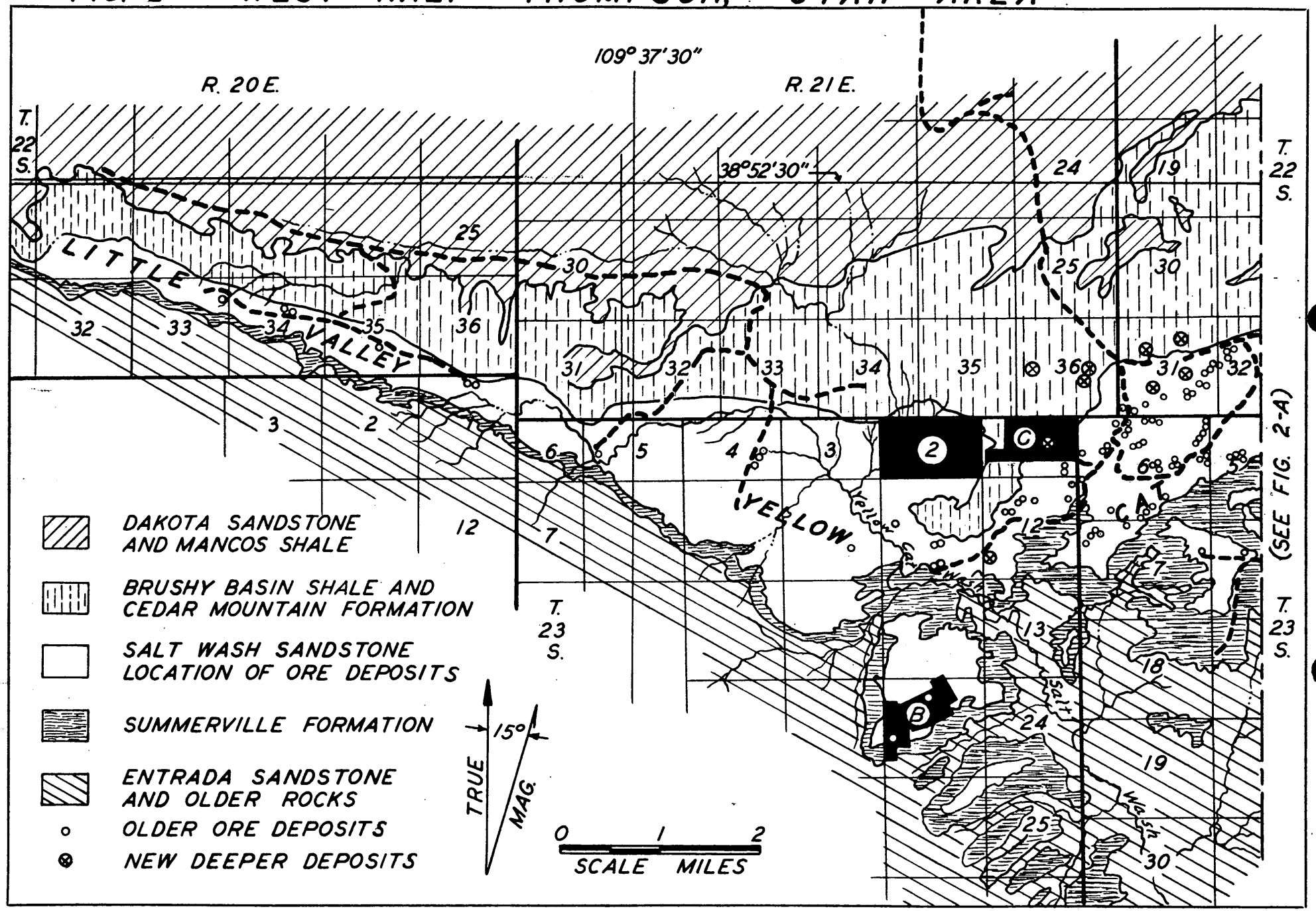
Figures 2 and 2A are geologic maps showing the location of the property under consideration. Although the area is criss-crossed with arroyos and gulches, there are no perennial, through-flowing, streams with the exception of the Colorado River which flows southwesterly a few miles south of the general area. Road construction within the area itself is no problem as the surface overlying the Salt Wash formation is comparatively flat, it being possible to drive a jeep almost anywhere in the area even without the benefit of roads. Mining machinery and supplies are available in Grand Junction, Colorado, 80 miles east of Thompson, and in Moab, Utah, approximately 40 miles south of Thompson.

PHYSICAL FEATURES AND CLIMATE

Topographically, the area under consideration is of moderate relief. The roads into the area from the main highway traverse relatively flat, rolling country and then drop only slightly into the vicinity of the Yellow Cat mines. The exposed Morrison formation extends east and west about twenty-five miles and varies in width from one-half mile to two and a half miles north and south.

There is very little vegetation of any sort in the area with almost no trees. The Thompson and surrounding area is primarily used as a winter grazing range for sheep. The climate is typical of east-central Utah and of west-central Colorado characterized by hot dry

FIG. 2 WEST HALF THOMPSON, UTAH AREA



Trim lines — Leave at least 3/4" from heavy lines on other two sides.

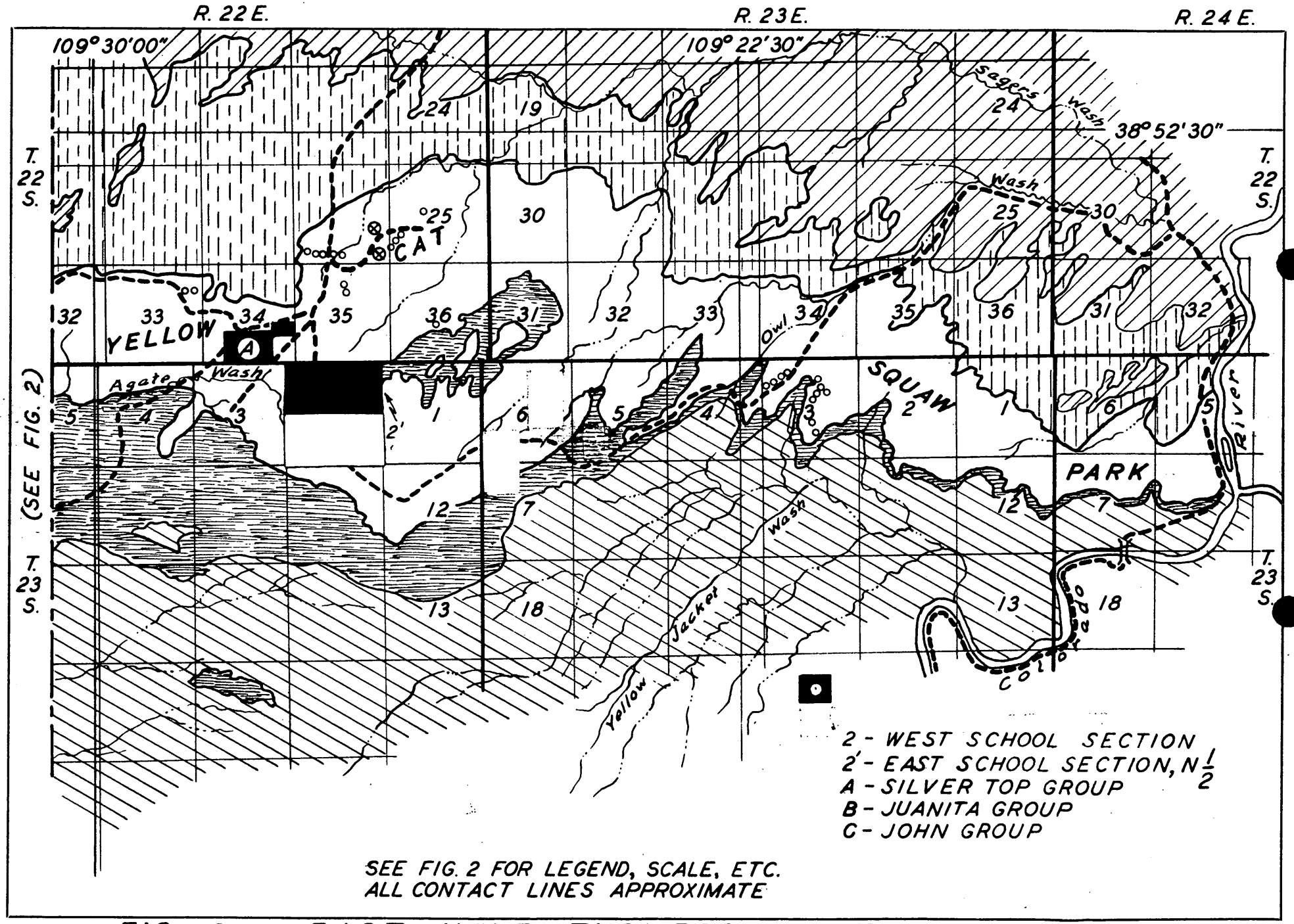


FIG. 2A EAST HALF THOMPSON, UTAH AREA

summers and cold winters. Rainfall is light. The U. S. Weather Bureau records, taken at Thompson, show an annual average precipitation of 8.5 inches over a period of thirty-three years. The coldest month is January, having an average mean temperature of 22 degrees above zero, compared with the hottest month, July, which has an average mean temperature of 83.4 degrees.

LABOR AND LIVING CONDITIONS

Grand Junction, which is the center of uranium mining activities, has a population of about 25,000 people. The increasing interest in uranium and the decline of Colorado's once thriving lead-zinc-silver mining industry and the closing of a large percentage of Colorado's coal mines have resulted in an influx of experienced hardrock miners - more than the uranium industry can absorb. Consequently, labor at the present time is no problem.

Base wages for common labor vary from $1.50 to $1.75 per hour. Experienced miners obtain from $1.75 to $2.50 per hour; diamond drill operators, $2.50 per hour; and carpenters and bulldozer operators, from $2.50 to $3.00 per hour.

The cost of food and supplies is normal to the whole of Colorado and Utah. Most camp boarding houses in the uranium field operate at a cost of from $2.50 to $3.00 per man per day. There are a few mining cabins in the Yellow Cat area but most of the present operating companies are transporting their personnel back and forth from Thompson and Cisco where there are limited living quarters. There is one mining cabin on the John Group.

HISTORY

General - Colorado Plateau Area

Radioactive minerals were known to exist in the sandstones of Western Colorado as early as 1880. Deposits of vanadium and uranium ores, now known as Carnotite, were first produced on a small scale in 1898, and from 1911 to 1923 these deposits were worked extensively for radioactive uranium ores principally for the radium content. As early as 1910 several large companies acquired properties in the region and shipments of carnotite ore to radium extraction plants in France were made. Similar plants were built in the United States which produced 10.5 grams of radium in 1913, and 22.4 grams in 1914.

An almost complete cessation of mining activity occurred in 1915 due to the discovery of the rich uranium deposits of the Belgium Congo. A mill and roasting plant at Uravan, having a capacity of 125 tons per day, was completed in 1936 by the United States Vanadium Corporation. About the same time smaller plants were built at Cedar and Gateway, Colorado. By 1938, after the period of comparative inactivity, production primarily for vanadium had achieved respectable proportions and new impetus was given to the production of this metal by the United States entry into World War II in December 1941. During the war years several new treatment plants for vanadium ores were completed in the area. At that time it was not publicly known that uranium was of major interest at these plants. New plants to beneficiate these ores were built at Monticello, Utah; and Durango, Colorado, and older plants were rehabilitated at Naturita and Uravan, Colorado.

Due to the small, irregular-shaped, ore bodies the extra production necessary to keep the mills at full capacity had to come from the small operators whose funds generally did not permit them to maintain the necessary development and exploratory programs ahead of actual mining operations. A survey by government agencies indicated that an extensive exploratory program would be necessary to maintain production and accordingly the U. S. Bureau of Mines in 1941 began a drilling program on a cooperative basis with the U. S. Geological Survey. The Survey's phase of the program was to furnish maps, suggest drill sites, and log drill cores. The principle objective of this program was to enlarge the known ore-bodies by development drilling rather than to discover new ore-bodies by exploratory drilling, although consideration was also given to this phase of the program. As a result of the Bureau's drilling program approximately 16,000 tons of ore valued at $270,000 was mined by the small operators throughout the area while the project was in operation. When the Bureau's program was finished in December 1943, a total of 895 diamond core drill holes were completed having a total of 38,510 feet.

The smaller producers in the region were forced to cease operations in December 1943 due to increased imports of foreign uranium and vanadium ores which caused the demand for domestic ores to decline markedly.

The Geological Survey had begun a systematic investigation of the Colorado Plateau Area as early as 1939, and in 1947 both the Geological Survey and the Atomic Energy Commission launched a full-scale geologic and exploratory drilling program to determine the actual uranium potential of the Plateau. While centering attention

on the direct problem of finding uranium reserves, the investigation, in addition, has assembled general as well as specific information in the belief that all of it sooner or later will be found to be pertinent to the "classification, examination and preparation of plans for complete development" of the uranium country. The Atomic Energy Commission through their Grand Junction Operations Office have been the center of all activity being carried out in the uranium-vanadium region.

Thompson District

As seen in Index Map, Fig. 1, the Thompson district is located in central Eastern Utah near the Colorado-Utah border. The specific area in question is situated on the northeast flank of the Salt Valley anticline in Grand County, Utah. The ore occurrences are found in the Salt Wash member of the Morrison formation and occur through a vertical range of 200 feet, from the upper conglomerate lense of the Salt Wash to within 50 or 60 feet of the underlying Summerville formation.

In 1942 the Geological Survey initiated a program of geologic studies in the Thompson district as an integral part of the general survey of domestic uranium-vanadium reserves. Investigations of the area by the Geological Survey were under the direction of R. P. Fischer. Geologic features of the area were mapped on aerial photographs by Wm. Lee Stokes in 1943, and 1944. Topographic and geologic maps were completed in 1943 of the central part of the Thompson district which is known as the "Yellow Cat" area, as most of the important deposits of ore were first developed in this area. From 1951 through 1954 the Geological Survey carried out an

extensive diamond drilling program mainly in the Yellow Cat area but extending easterly to the Squaw Park area, a distance of approximately twelve miles. The drilling was confined mainly to the Salt Wash member - - - the preliminary drilling being done on a widely-spaced grid pattern for geologic and sub-surface structural information. Later drilling was confined to the Yellow Cat area, which previously had produced most of the ore. This drilling proved additional large and valuable ore bodies in what is probably the fourth ore-bearing sandstone below the base of the Brushy Basin member. This ore would lie from 160 to 200 feet stratigraphically below the horizon that had produced the early ore in the district as exemplified by the Cactus Rat ore occurrence in the upper sandstone conglomerate. At the present time five of these lower ore bodies are being developed by inclines and shafts.

ORE DEPOSITS

General Geology

The rocks exposed in the Thompson district consist entirely of sediments of Jurassic and Cretaceous age. The broad valley traversed by the highway between Cisco and Thompson is composed of Mancos shale, a soft, gray, homogeneous formation that usually erodes into low rolling topography. Many of the lower bedsin the Mancos shale contain organic content and certain beds are highly bituminous. Directly underlying the Mancos shale is the Dakota sandstone, a relatively hard formation that caps irregular mesas and forms cliffs and dip slopes above the more easily eroded Cedar Mountain formation. The Dakota is a wide spread continental formation made up of interstratified shales, sandstones and conglomerates with minor

carbonaceous beds. The formation varies in thickness in this particular area from 40 to 110 feet, and a predominance of chert and quartzite pebbles are found in the lower part of the formation.

Directly beneath the Dakota sandstone is found the Cedar Mountain formation, formerly mapped as upper Morrison, and for this reason has not been differentiated from the Brushy Basin on the geologic maps, Figs. 2 and 2A. The rock composition of the Cedar Mountain formation and the underlying Brushy Basin shale is very similar, both containing a predominence of mudstone, having varied colored tints with many calcareous nodules and lenses of siltstone, and conglomerate. The total thickness of the Cedar Mountain formation is approximately 110 feet. The bottom marker bed is a quartzitic conglomerate about 15 feet in thickness and forms a more persistent cliff and horizon marker than the Dakota sandstone. Underlying the Cedar Mountain is found the Morrison formation which is broken down into two members - - the upper member, the Brushy Basin shale, and the lower member, the Salt Wash sandstone. The Brushy Basin shale in the Yellow Cat area reaches a thickness of over 300 feet and consists mainly of banded mudstones and shales varying in colors from pink-red to yellow and brown. The formation contains a few thin lenses of grey coarse sandstone which are very lenticular in shape, and that form cliffs where eroded.

The lower part of the Morrison formation, the Salt Wash sandstone member, has a thickness of over 230 feet in the Yellow Cat area. The contact between the Salt Wash sandstone and the Brushy Basin shale is not a definite stratigraphic plane but is usually determined by the local position of the uppermost sandstone conglomerate beds of the Salt Wash member. The Salt Wash sandstone usually forms benches,

dip slopes, or shallow ravines, and is amenable to surface and subsurface prospecting at moderate depths. The Brushy Basin shale, on the other hand, generally always forms a steep slope that presents a difficult drilling problem. The Salt Wash sandstone member contains the carnotite deposits in the Yellow Cat area and in some places, five separate sandstone beds or rims are mineralized. The uppermost or first rim is a conglomeratic sandstone that contains much limonite stain, plant impressions, silicified bones and wood, and is ore-bearing in several places. A light red mudstone, approximately 20 feet in thickness, separates the first and second sandstone rims. Below the second ore-bearing sandstone lies a red mudstone usually from 5 to 8 feet in thickness. Directly under this mudstone is a third sandstone rim, a white to grey, medium-grained, soft sugary formation, that forms slopes and cliffs up to 60 feet in thickness. This particular rim contained the ore deposits mined in the Little Pittsburg No. 5 mine.

Directly underlying this massive sandstone occur a series of alternating mudstones and siltstones, having a cumulative thickness of approximately 35 feet. Underlying this series of relatively thin beds is found another massive, light grey, sandstone containing an abundance of small grey clay pellets in layers one-half to one inch thick. This fourth sandstone rim is cliff forming and has, about nine feet from its base, a persistent layer of green-grey clay that is traceable over a wide area, and which has the same stratigraphic position as several thin ore bodies. From all indications, the recently discovered deeper ore bodies occur in this sandstone rim. Directly underneath lie an alternating series of about ten mudstones and siltstones beds which have an accumulative thickness of between

50 and 60 feet. These beds lie directly over the Summerville formation.

The Summerville formation in the Thompson district averages about 50 feet in thickness and consists of argillaceous and arenaceous components to an extent that true sandstones or mudstones are seldom observed. Several thin lenses of limestone appear and there exists a predominence of concretionary oval masses of chert from five to ten feet in diameter in the middle part of the formation. Locally the Summerville appears as broad flat surfaces, reddish in color. Although the contact between the Summerville and the underlying Entrada sandstone is easily determined and can be accurately mapped, this does not hold true with the overlying Salt Wash sandstone contact. This contact has been roughly established at the horizon where the thin red shales and chert constituents disappear and the lighter colored, sandy, lenticular beds appear. However, this contact is not sharp and in places Morrison sands are found in upper Summerville and red thin-bedded shales are found in the lower Morrison.

The pre-Summerville rocks have not been differentiated on the geologic maps, Figs. 2 and 2A, with only the contact between the Summerville and the Entrada shown. The Entrada formation in this area is a grey to orange, clean, massive fine grained sandstone, forming either smooth cliffs or wide bedrock benches over many square miles south of the outcrop of the Summerville formation. In places it shows thicknesses of 350 feet and can be traced for hundreds of miles as a smooth cliff-forming sandstone.

The predominent structural feature of the Thompson district is a northwest trending anticline, the crest of which has been dropped by a complicated fault system into a structural trough. The Yellow

Cat area is on the northeast flank of the fold outside of the area of major movement.

Occurrence of Deposits

In general the ore deposits of the Colorado Plateau area have been found in three main formations, the Morrison, Entrada and Shinarump. Many theories have been advanced endeavoring to explain why commercial concentrations of uranium and vanadium, which are widely disseminated in the earth's crust, have been formed in these formations. Some of these theories as proposed are: (1) They are the result of hydrothermal action, and therefore are related to deep-seated fractures, the deposition coming from nearby primary ore occurrences. (2) They are syngenetic accumulations laid down in close association with organic materials. (3) They are syngenetic accumulations of detrital mineral particles laid down with other inorganic constitutents of the enclosing rock. (4) They originated later than the enclosing rock by concentrations of ground water in the proximity of organic accumulations or under the influence of obscure physical or chemical factors not now easily detected. Although the origin of the uranium-vanadium mineralization in the ore has not been agreed upon, accumulated observations seem to point that its occurrence was probably a result of post-precipitation from ground water solutions, after the sedimentation of the sands.

The major portion of the commercial ore bodies of the Colorado Plateau have been found in the Salt Wash sandstone member of the Morrison formation. Generally the ore bodies are very irregular, tabular, layers that form "rolls" of considerable thickness, sometimes in excess of 20 feet. Usually they

lie parallel to the bedding, but do not necessarily conform to the beds in detail. Frequently the rolls or longitudinal direction of the ore bodies are roughly parallel. The deposits have been observed to vary in size from only a few tons of ore to those exceptions containing from 60 to 100 thousand tons. Probably the average mine throughout the Plateau might be less than two thousand tons of ore, averaging 0.28 per cent U_3O_8 and 2.00 per cent V_2O_5. The deposits of the Morrison formation have usually been referred to as "Carnotite" deposits to distinguish them from similar deposits in the Entrada Sandstone which have been termed the "Roscoelite" deposits.

In the Yellow Cat area the ore was evidently formed by selective mineralization of the sandstone, concentration of minerals around fossil organic remains, and absorbtion by certain types of clay material. Drilling has indicated that the more continuous massive sandstones are more likely to contain uranium-vanadium deposits than are the discontinuous ones. The sandstone lenses with thicknesses in excess of thirty feet appear to be more favorable for the occurrence of ore deposits. In general the mudstones and siltstones are barren of mineralization.

Early mining in the area produced mainly carnotite-type ores, which are a potassium uranium vanadate. Recent ore bodies found in the lower, or fourth sandstone have produced green micaceous vanadium types of mineralization, and vanoxite, a black hydrous vanadium oxide, as well as sub-carnotite type ores. The older ore bodies, characterized by curving zones of mineralization or "rolls", varied in size from thin irregular layers a few feet in extent to masses several hundred feet in length, containing several hundred tons of

ore. Curving planes of weakness on one side of the ore body usually separated heavily mineralized rock or ore from barren sandstone. Frequently, the side opposite from the curved surface graded from ore into waste gradually and in many instances consisted of an "assay" wall. In some ore bodies mineralized halos or aureoles of lower grade material were observed to grade out from the commercial ore. Rolls generally lie with the long axis parallel to the stratification planes of the sandstone, but do not seem to be controlled in any manner by the bedding planes. In thin-bedded sandstones and shales, the deposits are usually tabular and confined along the bedding planes with the greater dimensions corresponding to the stratification of the replaced rock.

The recently explored deeper ore deposits found to occur in the fourth sandstone rim have not been developed or mined to a sufficient extent to determine their shape or characteristics. However, estimates from drill logs and assays indicate that several of these deposits will contain commercial ore in excess of 25,000 tons, of grades averaging from 0.30 to 0.40 percent U_3O_8 and 2.00 to 2.50 percent V_2O_5.

The Geological Survey's drilling program in the Thompson district includes over 1,725 diamond core and wagon drill holes spread over a total of 30 square miles or roughly 30 Sections. Of this number, over 1,000 holes were concentrated in one area containing about four square miles: Parts of Sec. 36, T. 22 S., R. 21 E.; Sec. 31, T. 22 S., R. 22 E.; Sec. 1, T. 23 S., R. 21 E.; and Sec. 6, T. 23 S., R. 22 E. Drilling has proven one channel runs east and west for at least two and one-half miles and has an average width of about 300 feet north and south. The majority of the new ore bodies recently

discovered have been found to occur in this thick sandstone channel.

Production

From 1935 through 1956 a total of 55,000 tons of uranium-vanadium ore was produced from the Thompson district, mainly from the Yellow Cat area. Indicating the relative small size of the ore bodies mined during that period is the fact that only about ten mines are credited with production in excess of 1,000 tons. The average grade of ore produced has been estimated at 0.25 percent U_3O_8 and 1.50 percent V_2O_5, or a value of about $30 per ton. Thus, the total production from the area during this period would amount to slightly over one and one-half million dollars.

In striking contrast to the above production figures are the following estimates of some of the recently discovered ore deposits in the fourth rim sandstone channel previously described. These ore bodies are now being developed with shafts and inclines.

Blackstone (Sec. 31, T. 22 S., R. 22 E.)

Two ore bodies with an estimated 25,000 tons.
Estimated average grade 0.30 percent U_3O_8; 2.25 per cent V_2O_5.
Estimated value $1,000,000, plus $35,000 production bonus.

Utah Alloys (Sec. 31, T. 22 S., R. 22 E.)
(Sec. 1, T. 23 S., R. 21 E.)

Two ore bodies, No estimated tonnage and grade.
One deposit reported worth in excess of $1,000,000.
Other deposit reported about 5,000 tons of ore.

Ringtail Shaft (Sec. 36, T. 22 S., R. 21 E.)

Incomplete data on last drilling.
Present estimate indicates 20 - 25 thousand tons of ore.
Estimated average grade 0.40 percent U_3O_8; 2.25 percent V_2O_5.
Estimated value of $1,250,000, plus production bonus of $35,000.

John Incline (Sec. 1, T. 23 S., R. 21 E.)

Estimated tonnage 1,360.
Estimated average grade 0.44 percent U_3O_8; 1.09 per cent V_2O_5.
Estimated value $61,980, plus production bonus of $35,000.

School Section (Sec. 2, T. 23 S., R. 21 E.)

Estimated tonnage 16,355.
Estimated average grade 0.22 percent U_3O_8; 0.94 percent V_2O_5.
Estimated value $381,281, plus production bonus of $35,000.

JOHN GROUP

(Sec. 1, T. 23 S., R. 21 E.)

The John Group of nine claims, comprising 183.78 acres, are located in Sec. 1, T. 23 S., R. 21 E., SLM, in the Yellow Cat area in Grand County, Utah. Refer to Fig. 2. The claims are recorded as follows:

Claim Name	Original Location	Book	Page	Amended Location	Book	Page
John		9K	5		15	330
Mark		9K	4		15	331
Minnie		9K	4		15	332
Lee		9K	4		15	333
Maxine		9K	4		15	334
Rose		9K	4		15	335
Chance		9K	3		15	336
McGill		9K	3		15	337
Bandy		9K	3		15	338

The assessment work for the year ending June 30, 1956 was completed and recorded. The expenditures made since July 1, 1956 for mining operations are more than sufficient to cover the required amount of assessment work for the year ending June 30, 1957.

The claims were originally staked by Charles Steen who conveyed eight-tenths interest to Strategic Minerals Exploration Co. Great Western Uranium Corp. later purchased the 80 percent interest from Strategic Minerals Exploration Co., who retained a 10 percent overriding royalty in the eight-tenths undivided interest. Ebbley and

associates purchased the eight-tenths interest from Great Western and later bought out Strategic Minerals overriding royalty. Subsequently, Ebbley and associates conveyed their interest to Mid-Continent Uranium Corp. who now has an undivided eight-tenths interest in the nine claims, and Charles Steen has an undivided two-tenths interest. There is no overriding royalty on the claims.

The rocks exposed on the John Group consist of sediments of the Salt Wash sandstone member and Brushy Basin shale member of the Jurassic Morrison formation. The Brushy Basin shale member is exposed on the northern one-third of the John Group and the eastern portion of the Chance claim. The Salt Wash sandstone member is exposed over the remainder of the claims.

Drilling has indicated the fourth ore-bearing sandstone to be present everywhere under the John Group, and the John Incline mine is in the fourth sandstone. Here the fourth ore-bearing sandstone is interbedded with mudstone and contains thin lenses of mudstone and mudstone-pebble conglomerate. This mudstone is normally red-brown, but near ore deposits the mudstone within and immediately beneath the sandstone is gray. In plan view the areas of gray mudstone are several times larger than the associated mineralized rock and offer larger "targets" in delineating favorable ground. The ore minerals occur mostly in sandstone, coating the grains and partly or entirely filling the pore spaces. The best uranium ore occurs with carbonaceous material.

Drilling depths to penetrate the fourth ore-bearing sandstone on the John Group of claims vary from 60 to 250 feet. A limited drilling program was carried out by the U. S. Geological Survey

on these claims during 1952 and 1953. A total of 58 holes were drilled, of which four were with a wagon-drill and 54 were diamond drilled. The four wagon-drill holes encountered water and did not penetrate through the fourth ore-bearing sandstone. Of the 58 holes, 28 holes were drilled on wide-spaced centers, nine holes were drilled on close-spaced centers in the southeast corner of the McGill claim on sites of selenium indicator plants, and 21 holes were drilled on close-spaced centers in blocking out ore on the John claim. Of the total holes drilled that penetrated the fourth ore-bearing sandstone, 47 holes were considered favorable, four holes semifavorable, and three holes unfavorable. Of the holes considered favorable, six holes cut mineralized material of ore grade and thickness and fourteen holes cut mineralized material below the cutoff grade for ore. In addition to the ore blocked out on the John claim by the Geological Survey, two ore holes and one mineralized hole were drilled on 100-foot centers on the Minnie claim about 700 feet north-west of the John ore-body.

Before acquiring the property from Great Western, Ebbley and associates spent from September 8th to the 23rd, 1955, pumping out the incline and underground workings so that an inspection could be made to determine the extent of past mining. After the inspection had been made, the incline was allowed to refill.

Great Western had sunk the inclined shaft on a 25 degree slope, a distance of 335 feet to intercept the ore-horizon. Level development consisted of about 200 feet of drifting. One of the ore holes (YC-325) had been reached and some mining had been done in this area. It was noted from the drill log that this one hole contained

thin low-grade ore. Mining around this hole indicated the log to be reliable. Approximately 100 tons of low-grade ore had been mined by Great Western, but this was not done in the areas indicated by the drilling to be the most favorable. Track and air lines had been installed and a timber ore bin of 40-50 ton capacity had been built and was in good condition. Surface buildings on the property consisted of a hoist shed, compressor house, tool shed, bunk-house, and powder magazine. Ground conditions were generally good, requiring little or no timber. Mining was done on a modified room and pillar method.

In February, 1955 1956?, after the property had been acquired by Mid-Continent, work was started on surface building rehabilitation. Mining equipment, consisting of a compressor, pump, hoist, fan, vent pipe, cars, drill and steel, etc., were purchased. The incline and workings were again pumped out and a program started to clean out the underground working and excavate for a large size sump. The first shipments of ore, mainly from development headings, were made in early May using a crew of three men.

Throughout the remainder of 1955 Mid-Continent operated the John Incline mine with a small crew, mainly on development work. By the end of the year a total of 375 feet of development drifting was completed, of which 230 feet was in barren rock.

Mid-Continent recessed work at the mine from January, 1956 to May, 1956. During May, 1956 the mine was leased, Mid-Continent receiving 25 percent of the gross ore sales. At the present time the mine is still under lease.

Refer to Figure 3 for map of underground workings.

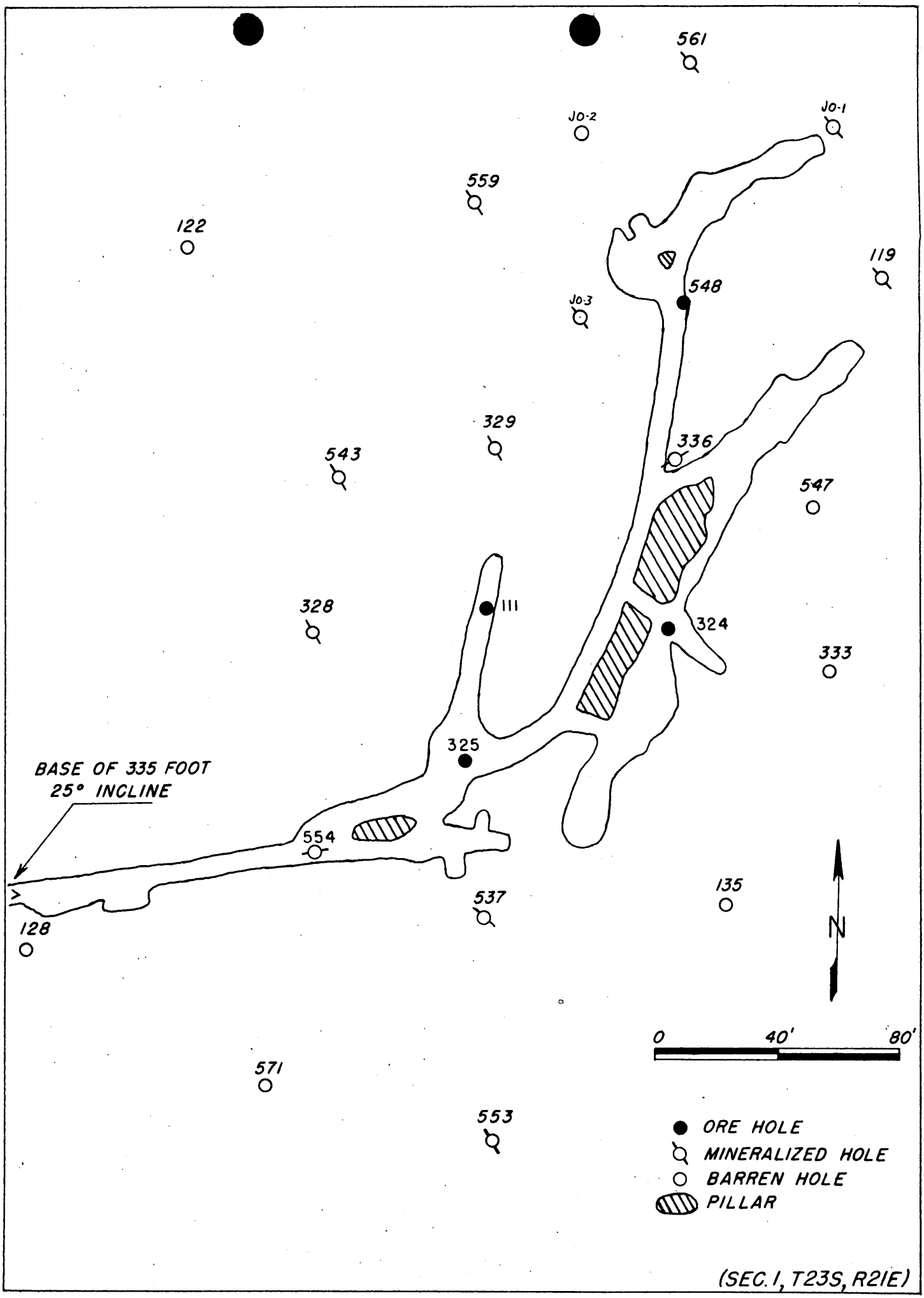


FIG. 3 JOHN INCLINE UNDERGROUND WORKINGS

Production:

Total production from the John Incline Mine from May, 1955 through December, 1956 was 947.5 tons, averaging 0.392 percent U_3O_8 and 0.630 percent V_2O_5. All the above tonnage was mined from the areas around drill holes YC-324 and YC-548.

Gross ore sales (less haulage allowance) during above period	$35,292.39
Production bonus	25,867.39
Total received	$61,159.78
	($64.55 per ton)
Total production bonus used to date	7,426.15 pounds
Production bonus remaining	2,573.85 pounds

Reserves:

Calculations of tonnages and grade from data obtained from the U. S. Geological Survey drilling on the John claim are as follows:

Upper Layer: (not commercial)

Hole No. YC-111; 3.25 feet thick; 0.10% U_3O_8; 0.08% V_2O_5.

Lower Layer:

Hole No. YC-324; 6.0 feet thick; 0.53% U_3O_8; 1.03% V_2O_5. Using 25 ft. radius = 1,963.5 sq. ft. X 6.0 ft. = $\frac{11,781.0}{14}$ = 841.5 tons.

Hole No. YC-325; 2.1 feet thick; 0.22% U_3O_8; 0.07% V_2O_5. Using 25 ft. radius = 1,963.5 sq. ft. X 2.1 ft. = $\frac{4,123.35}{14}$ = 294.5 tons.

Hole No. YC-548; 1.6 feet thick; 0.39% U_3O_8; 2.67% V_2O_5. Using 25 ft. radius = 1,963.5 sq. ft. X 1.6 ft. = $\frac{3,141.6}{14}$ = 224.4 tons.

Weighted Average Lower Layer:

841.5	0.53	445.995	1.03	866.745
294.5	0.22	64.790	0.07	20,615
224.4	0.39	87.516	2.67	599.148
1,360.4 tons		598.301		1,486.508

$\frac{598.301}{1,360.4}$ = 0.44% U_3O_8 $\frac{1,486.508}{1,360.4}$ = 1.09% V_2O_5

Value per ton @ 0.44% U_3O_8 = $38.80

Value per ton @ 1.09% V_2O_5 = 6.76

Total $45.56 per ton

Gross Value = 1,360.4 X $45.56 = $61,979.82

Production Bonus = 35,000.00

Estimated value of ore body = $96,979.82 ($71.29 per ton)

Ore produced 947.5 tons = $35,292.39 ($37.25 per ton)

Bonus received 7,426.15 lbs. = 25,867.39 ($ 3.48 per pound)

Total $61,159.78 ($64.55 per ton)

Ore remaining 413 tons X $37.25 = $15,384.25

Bonus remaining 2,573.85 lbs. X $3.48 = 8,957.00

Estimated value of ore remaining $24,341.25 ($58.94 per ton)

Recommended Exploration Program:

A large area of favorable ground on the property has not been fully explored. There appears to be a good chance of locating more ore bodies with additional drilling. The location of the John Group, surrounded on all sides by operating properties; the Parco 23 on the South, the Ringtail shaft on the north, the old Yellow Cat workings and the Blackstone and Allor 12 mines to the east and Section 2 ore bodies to the west, would indicate that the property is worthy of the time and expense necessary to fully explore and develop it. The limited amount of drilling on the claims to date has not only shown the presence of appreciable thicknesses of the fourth ore-bearing sandstone but has actually indicated the presence of commercial ore deposits. It is evident that a drilling program as outlined in this report is warranted and should result in the discovery of several commercial ore deposits.

The following estimates of drilling costs on the John Group of nine claims are based upon what is considered sufficient concentration of holes to determine the presence of commercial ore deposits in the two ore-bearing channels in the fourth sandstone and to determine the trend of these channels.

The suggested exploration program is setup in two Stages. Stage I consists of 41 holes (28 holes on 100-foot centers and 13 holes on 200-foot centers) to explore the two known fourth sandstone channels. Average depth is estimated at 180 feet to penetrate the fourth ore-bearing sandstone. Previous drilling in this area indicates that approximately 35 percent of the total footage should be cored for satisfactory results. Stage II drilling would be 50-foot spaced holes, under the classification of "reasonable delineation" offsetting

ore and mineralized holes found by Stage I and Stage II drilling. It is estimated that 50 holes would be required under Stage II. For location of the proposed holes under Stage I, refer to Fig. 4.

6(a) Independent Contracts:

It is contemplated to do all phases of the drilling under contract, including equipment, labor, water, power, fuel, etc., on an actual cost basis:

STAGE I: The pattern of holes as shown on Fig. 4, consists of 41 holes averaging 180 feet deep. It is estimated that approximately 65 percent of the footage will be non-core and 35 percent core.

		Cost	Unit Cost Per Foot
Drilling, total 7,380 feet.			
Non-Core	4,797 feet @ $ 1.85/ft.	$ 8,874.00	$1.202
Core	2,583 feet @ 2.75/ft.	7,103.00	0.962
Standby time	41 hours @ 12.00/hr.	492.00	0.067
Bulldozer, D-6	20 hours @ 12.00/hr.	240.00	0.033
Chemical assays	41 @ 5.00 each	205.00	0.028

(b) Labor, supervision, consultants:

It is estimated 2 drilling units can accomplish an average of 160 feet per working day. Stage I footage then could be drilled in 46 working days or 2 months time, figuring 25 working days per month.

One sampler (2 months)	$900.00		
One geologist (2 mo. incl. report)	1,300.00		
Expenses (100 man days @ $5.00/day)	500.00		
Consultant (15 days, intermittent)	750.00	3,450.00	0.467

(c) Operating material and supplies:

Fuel for 1/2 ton truck ($75/month)	150.00		
Core Boxes (80 @ $5.00 each)	400.00		
Misc. drafting, office and report supplies ($25/month)	50.00	600.00	0.081

		Cost	Unit Cost Per Foot
(d) Operating equipment:			
1/2 ton pickup truck ($150/mo.)	300.00	$	$
Counter and probe unit ($62.50/mo.)	125.00	425.00	0.058
(g) Miscellaneous:			
Accounting ($100/mo.)	200.00		
State & Fed. Unemploy. Ins. S. S. Tax, State Comp. Ins. (Total 8% of $2,950.00)	236.00	436.00	0.059
(h) Contingencies:			
Approximately 5% of Total		1,091.00	0.148
	TOTALS	$22,916.00	$3.105

STAGE II: An additional 50 holes will be required as 50-foot offsets around ore and mineralized holes found by Stage I. Costs will be in proportion to the costs of Stage I drilling.

		Cost	Unit Cost Per Foot
(a) Independent Contracts:			
Drilling, total 9,000 feet.			
Non-core	5,850 feet @ $ 1,85/ft.	$10,823.00	$1.202
Core	3,150 feet @ $ 2.75/ft.	8,663.00	0.962
Standby time	50 hours @ $12.00/hr.	600.00	0.067
Bulldozer, D-6	25 hours @ $12.00/hr.	300.00	0.033
Chemical assays	50 @ $ 5.00 each	250.00	0.028
(b) Labor, supervision, consultants:		4,203.00	0.467
(c) Operating materials and supplies:		729.00	0.081
(d) Operating equipment:		522.00	0.058
(g) Miscellaneous:		531.00	0.059
(h) Contingencies (Approx. 5% of total)		1,332.00	0.148
	TOTALS	$27,953.00	$3.105

STAGE I	$22,916.00
STAGE II	27,953.00
Total	$50,869.00

Government's participation @ 75% = $38,152.00

Total unit price per foot $3.105

Total time required to complete both stages: 6 months

CONCLUSIONS

Estimated production from the Yellow Cat area from 1935 through 1956 would indicate that a total of 55,000 tons of uranium-vanadium ore was mined having a value slightly in excess of one and one-half million dollars. Drilling by the U. S. Geological Survey has established locations and trends of deeper ore-bearing sandstone channels containing ore deposits of major significance. Six or seven ore bodies are now being mined that contain proven ore reserves many times greater than all past production from the area. Favorable sandstone channels containing many commercial ore deposits have now been established in areas of concentrated drilling and these should be traced by further exploratory drilling.

The John Incline mine has produced $61,159.78 worth of ore. Estimated value of ore remaining in the mine is $24,341.25, including the remaining production bonus.

The estimated total cost of the proposed drilling program under the Defense Minerals Exploration Administration is $50,869.00, Mid-Continent contributing 25 percent of the cost.

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Date	Surname	Code
3-26	Chang	700
3-26	Ellis	700
3/27	Selfridge	130
"	Johnson	110
"	Mittendorf	100
3/28	C	220

225

MAR 27 1957

Mr. Norman E. Ebbley
Vice President and General Manager
Mid-Continent Uranium Corporation
204-205 Uranium Center Building
Grand Junction, Colorado

Re: Docket No. DMEA-4664 (Uranium)
John Group of Claims
Grand County, Utah

Kilsgaard
Lamb

Dear Mr. Ebbley:

Your application for aid in an exploration project and other information available to us in Washington concerning your above-named property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

As you know, an application under Docket No. DMEA-4167, covering the same property, was denied on July 23, 1956. Careful study of your present application, together with the other information available to us, fails to show any new developments that would improve the prospects for making a significant discovery on your property. We regret to advise you that, under these circumstances, your application for exploration assistance is denied.

We wish to thank you for your interest in the Defense Minerals Exploration Program and for bringing your new proposal to our attention.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

MChing/izm 3-26-57
cc to: Mr. Ching
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
DMEA FT Reg. 3 (2)

8623

Docket

700

Ching Ellis

March 26, 1957

Summary of Proposed Project

Object: Denial of application for an exploration project.

Docket No.: DMEA-4664

Commodity: Uranium

Applicant: Mid-Continent Uranium Corporation
204-205 Uranium Center Building
Grand Junction, Colorado

Property: Nine unpatented mining claims known as the John Group, including the John, Mark, Minnie, Lee, Maxine, Rose, Chance, McGill and Bandy claims, located in sec. 1, T. 23 S., R. 21 E., S.L.M.&B., Grand County, Utah. Applicant owns an undivided eight-tenths interest and Charles Steen owns an undivided two-tenths interest in the property.

Date of Application: February 23, 1957

Amount of Application: $50,869.00

Work Proposed: Explore two ore-bearing channels in the Salt Wash member of the Morrison formation by core and non-core drilling in two stages:

Stage I - (41 holes; 28 on 100-ft. centers, & 13 on 200-ft. centers)

4,797 ft. non-core drilling @ $1.85/ft.	$8,874.00	
2,583 ft. core drilling @ $2.75/ft.	7,103.00	
41 hrs. standby time @ $12/hr.	492.00	
20 hrs. D-6 bulldozer @ $12/hr.	240.00	
41 chemical assays @ $5/each	205.00	
Labor, supervision, consultants	3,450.00	
Operating materials and supplies	600.00	
Operating equipment	425.00	
Miscellaneous	436.00	
Contingencies	1,091.00	$22,916.00

Stage II - (50 holes as 50-ft. offsets)

5,850 ft. non-core drilling @ $1.85/ft.	$10,823.00	
3,150 ft. core drilling @ $2.75/ft.	8,663.00	
50 hrs. standby time @ $12/hr.	600.00	
25 hrs. D-6 bulldozer @ $12/hr.	300.00	
50 chemical assays @ $5/each	250.00	
Labor, supervision, consultants	4,203.00	
Operating materials and supplies	729.00	
Operating equipment	522.00	
Miscellaneous	531.00	
Contingencies	1,332.00	$27,953.00
Estimated Total Cost		$50,869.00
Government Participation @ 75%		$38,152.00

Field Team Report: March 5, 1957 - D. P. Elston, USGS:

A Report of Examination was previously made on this property under Docket No. DMEA-4167. No data are presented in the present application that would modify the unfavorable conclusions of that report.

The present application has two favorable factors: (1) The target is in the thicker parts of the fourth sandstone of the Salt Wash member as deduced from previous wide-spaced USGS drilling; and (2) The John mine on the property has produced 1,074 tons of ore averaging 0.36 percent U_3O_8 and 0.57 percent V_2O_5 through 1956.

Production in recent months is not known but reportedly the lessees were considering abandoning operations because reserves have been depleted.

An unfavorable feature of the subject property is the character of the host rock and its relation to the habit of ore occurrence. The host rock is characterized by an abundance of small festoon structures which have localized small pods and thin layers of ore at different elevations within the sandstone. Consequently, the ore layers do not usually extend between adjacent ore holes and are quite limited in extent.

A similar situation was found on a property about 3,000 feet northeast of the John claims under Docket No. DMEA-3962. Three "ore holes" were intersected by underground workings, but minable ore was found around one hole only.

The situation is also similar on School section 2, about 3,000 feet to the west (Docket 3360) where abrupt stratigraphic and grade variations of the ore occurrences indicate that many of the "ore holes" have penetrated individual pods which are distributed in clustered groups.

The favorable areas on the subject property are narrow and channel-like. Such small areas may contain a cluster of small ore pods but do not contain large deposits of ore.

After reviewing the subject application and results on adjoining properties, it is concluded that the proposed drilling would not result in a significant discovery. It is recommended that the application be denied without a second field examination of the property.

Commodity Group Comments:

USGS, W. P. Williams, March 18, 1957:

Applicant claims to have found considerable ore on a neighboring property subsequent to a DMEA project under Docket 3360. The "ore holes" show that the ore is scattered through a large vertical range with many intervening barren layers, thus presenting a very difficult, if not impossible, mining situation.

The most optimistic view suggests that there is a fair chance that an ore body the size of the John deposit, about 1,000 tons, may exist on the property. Agrees that a re-examination of the property is not warranted and that the application should be denied.

USBM, John E. Crawford, March 19, 1957:

Advises denial of the application in accordance with the recommendations of the Field Team.

Rare & Miscellaneous Metals Div., Michael Ching, March 26, 1957:

The Applicant claims that in the Yellow Cat area several recently discovered ore deposits in the fourth sandstone of the Salt Wash contain 25,000 tons of reserves each. Apparently the field examiners consider these tonnages as exaggerated. Furthermore, the deposits were known at the time of the field examination under Docket 4167, and are not a new development in the area.

The John mine had produced 478 tons of 0.33 percent U_3O_8 ore at the time of the field examination in early 1956. Development work to that time amounted to 335 feet of incline and 475 feet of drifting, but no minable ore reserves were in sight. Subsequent work by lessees produced an additional 600 tons of ore. This history appears to support the examiner's report that mineralization is not uniformly widespread, but occurs in small localized bodies that are difficult to mine.

Conclusions and Recommendations:

The Applicant has failed to show that prospects for making a worthwhile discovery on the property are improved since the proposed exploration project under Docket No. DMEA-4167 was denied. It is recommended that the application be denied without a second field examination.

Ernest Wm. Ellis

Ernest Wm. Ellis

DMEA Form 7
(12-56)

Cancel
Denial Prepared

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Date	Surname	Code
3-13	Ching	700
3-13	Ellis	700
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Mr. E. N. Harshman, Acting
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4664 (Uranium)
Mid-Continent Uranium Corp.
John Group of Claims
Grand County, Utah

Dear Mr. Harshman:

The subject application is being referred to you for investigation, a field examination if warranted, and recommendations.

Enclosed for your information are memoranda, dated March 6, and 12, 1957, by W. P. Williams, USGS, and John E. Crawford, USBM, respectively, relating to the application. Also enclosed is a copy of the application for the use of the Field Team. The related claim map is missing.

It is noted from your March 6 teletype that the field will recommend denial of the application without a field examination. Apparently there has been no outstanding developments on the property since the application under Docket No. DMEA-4167 was denied. However, in view of the Applicant's persistent optimism regarding the property, and the rather impressive evidence which it presents to support the contention that large ore bodies may be found on this and surrounding properties, it is suggested that the potential of the whole area as well as the subject property, be carefully reviewed. Particular attention should be paid to the claim that recent exploration has discovered several deeper ore deposits, each of which contain in excess of 25,000 tons of good grade ore. Some note should also be made of the fact that the Applicant reports production of 947 tons of 0.39 percent U_3O_8 ore from the John mine whereas the field examiners under Docket 4167 reported that no minable ore reserves were exposed in the workings after 478 tons of 0.33 percent U_3O_8 ore had been produced.

Sincerely yours,

Enclosures
APPROVED:

Chairman, Operating Committee

Member, Bureau of Mines

Member, Geological Survey

MChing/izm 3-13-57
cc to: Mr. Ching
Admr.'s Reading File
Operating Committee
THKilsgaard, 5224
JKratchman, AEC

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DMEA Form 7
(12-56)

Cancel
Letter Prepared

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Date	Surname	Code
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3-13	Ellis	700
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		110
		100
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Mr. Norman E. Ebbley,
Vice President
Mid-Continent Uranium Corporation
204-205 Uranium Center Building
Grand Junction, Colorado

Re: Docket No. DMEA-4664 (Uranium)
John Group of Claims
Grand County, Utah

Dear Mr. Ebbley:

The application for assistance in exploring your property, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to:

Mr. E. N. Harshman, Acting
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

The Regional Office will contact you in regard to your project if additional information is required.

Sincerely yours,

Administrator

MChing/izm 3-13-57
cc to: Mr. Ching
Admr.'s Reading File
DMEA FT Reg. 3 (2)

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March 19, 1957

DMEA Contract No. 4664
DMEA Contract No.
Commodity Uranium
Name of applicant Mid-Continent Uranium Corp.
Name of property John group of claims
Location of property Grand County, Utah
Estimated cost of project $50,869.00

Ernest William Ellis, DMEA Member
Uranium Commodity Committee
John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Application
(Application, Initial Term Report, etc.)

1. Date of application 2/23/57. 2. Date received by DMEA 3/18/57
3. Is the project a viable project from technical standpoint: Yes ☐ No ☐
4. Is the project economically feasible from the standpoint: Yes ☐ No ☐
5. Information available on past production: Yes ☐ No ☐
6. Other pertinent factors known to reviewer: Yes ☐ No ☐
7. Explain items marked yes above:

8. Factors meriting special consideration:
a. Location ☐
b. Ownership ☐
c. Difficulties of financialization ☐
d. Geology ☐
e. Proposed exploration method ☐
f. Alternate exploration method ☐
g. Costs ☐
h. _____ ☐

9. Action advised:
a. Obtain information from applicant ☐
b. Refer to Field Team ☐
c. Denial ☒
d. Agree with Field Team ☒
1. Confer with Mr. _____ at _____ AEC office.
e. Disagree with Field Team ☐
f. Suggest alternate plan ☐
g. Request another examination ☐
h. Approval ☐

10. Remarks: (Use back of page if necessary)

IN REPLY REFER TO:

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Comments Complete

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

March 18, 1957

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of memo from field, DMEA 4664, Mid-continent Uranium Corp., John claims, Yellow Cat area, Grand County, Utah, (uranium).

In a memorandum from Grand Junction the field geologist points out that geologic conditions on the applicant's claims are not favorable for the presence of ore bodies of significant size.

The present application, DMEA 4664, is a repeat application of DMEA 4167, both on the same claims by the same applicant. The property was examined by an examining team under DMEA 4167.

The applicant claims to have discovered ore on a neighboring property by subsequent drilling after DMEA 3360. It must be remembered that the ore in the 'ore' holes of DMEA 3360 is scattered through a large vertical range with many intervening barren layers, all combining to present a very difficult, if not impossible, mining situation.

A member of the Geological Survey who was in charge of some of the Government drilling in the Yellow Cat district is of the opinion that there is a fair chance that an ore body the size of the John deposit, about a thousand tons, may exist on the property. This represents the most optimistic view of the property in the Geological Survey.

I agree with Grand Junction personnel that a re-examination of the property is not warranted and that the application should be denied.

W. P. Williams

W. P. Williams

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
224 New Customhouse
Denver 2, Colorado

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March 11, 1957

Memorandum

To: Secretary to the Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Docket No. DMEA 4664 (Uranium) Mid-Continent Uranium Corp. (John group of claims) Grand County, Utah

Enclosed are two copies of a memorandum dated March 5, 1957, from D. P. Elston, Geologist, USGS, wherein the recommendation is made that the subject application be denied without a second field examination. We concur in this recommendation.

DMEA Field Team, Region III

E. N. Harshman

By E. N. Harshman
Acting Executive Officer

Enclosures

IN REPLY REFER TO:

DMEA
RECEIVED
MAR 7 1957
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

UNITED STATES
DEPARTMENT OF THE INTERIOR
DMEA GEOLOGICAL SURVEY
DEPARTMENT OF THE INTERIOR

P. O. Box 360
Grand Junction, Colorado

MAR 8 1957
REGION III
DENVER, COLORADO

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RECEIVED MAR 14 1957

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March 5, 1957

Memorandum

To: Executive Officer, DMEA Field Team, Region III

Through: E. N. Harshman
J. F. Shaw
J. William Hasler

From: D. P. Elston

Subject: New application for DMEA aid (Uranium) on the John group of claims, Mid-Continent Uranium Corp., Grand County, Utah

Mid-Continent Uranium Corporation has made a new application, based on an isopach map of the fourth sandstone unit of the Salt Wash member of the Morrison formation. No data are presented in the application that would modify the results of the field examination made on the prior application (Report of examination, DMEA 4167).

There are two factors in favor of the present application. The first is that the proposed drill holes are confined to the thicker parts of the "fourth" sandstone of the Salt Wash member as deduced from previous wide-spaced U. S. Geological Survey drilling. The second is the tonnage produced from the John mine. As of December 31, 1956, according to AEC production records, the John mine produced 1,074 short tons of ore averaging 0.36 percent U_3O_8 and 0.57 percent V_2O_5. Prior to October 1956, the producing grade of the mine was about 0.33 percent U_3O_8 but production in October-December 1956 consisted of 209 tons averaging 0.50 percent U_3O_8 which raised the average grade for the mine.

Production during January and February 1957 is not known but an official of the Norbute Corporation, which owns the Ringtail mine to the north of the John mine, recently stated that the lessors of the John mine were considering a move to the Ringtail mine to pull pillars there as reserves have been depleted in the John mine. The outline of workings submitted by Mid-Continent Uranium Corporation is changed little as compared to the outline of workings in figure 2, DMEA 4167, June 1956.

A feature not mentioned in the application is the character of the host rock and its relation to the habit of the ore in the John mine. The host rock is characterized by an abundance of small festoon structures which have localized small pods and thin layers of ore minerals at differing elevations within the sandstone. The ore layers do not usually extend between adjacent ore holes and consequently they contain only small reserves.

W 0 (2)

DMEA
Mid-Continent Uranium Corp. 3/5/57

A similar situation has developed at the small ore body west of the Ringtail mine about 3,000 feet northeast of the John claims (Final Report, DMEA 3962). All three ore holes of the "ore body" were intersected, but minable ore was found only around one hole, consequently mining operations have been discontinued.

The results of Geological Survey, DMEA and Mid-Continent Uranium Corporation drilling, about 3,000 feet west of the John claims, have been evaluated (Final Report, in preparation, DMEA 3360). Abrupt stratigraphic and grade variations of the layers of ore minerals penetrated by the drill, indicate that many of the "ore holes" have penetrated individual pods of thin layers of ore minerals which are distributed in clustered groups.

Areas favorable for ore in the John claims, like the nearby surrounding areas, are narrow and channel-like. Such small areas do not contain large deposits although locally there may be a commercial or near-commercial tabular ore body in the midst or near a cluster of small pods of ore minerals. Large deposits containing significant tabular ore bodies are found within large areas of ground that can be classed as favorable for ore. The dimensions of these areas commonly are thousands of feet in width and miles in length and not, like the John claims, hundreds of feet in width and a thousand to two thousand feet in length.

The applicant has supplied no new data that would alter the observations and recommendation of the examining team incorporated in the Report of Examination, DMEA 4167, June 26, 1956, A review of adjoining properties substantiates the examining team's contention that exploratory drilling on the John claims probably would not discover ore deposits of significant size and grade, enough to increase the national reserve picture materially.

It is therefore recommended that this application for DMEA aid be denied and that a second field examination is not warranted.

D P Elston

D. P. Elston,
Geologist

DPE/mlr

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Washington 25, D. C.

Date March 12, 1957

DMEA Report No. 4664
DMEA Contract No.
Commodity Uranium
Name of applicant Mid-Continent Uranium Corp.
Name of property John group of claims
Location of property Grand Co., Utah
Estimated cost of project $50,869.00

Ernest William Ellis, DMEA Member
Uranium Commodity Committee
John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Review of Application
(Application, Field Team Report, etc.)

1. Report received 2/23/57. 2. Date received by reviewer 3/4/57

3. Other reports on this property known to reviewer: Yes ☐ No ☐

4. Other reports on nearby properties known to reviewer: Yes ☐ No ☐

5. Information available on past production: Yes ☐ No ☐

6. Other pertinent factors known to reviewer: Yes ☐ No ☐

7. Explain items marked yes above:

8. Reviewer recommends special consideration:
a. Position ☐
b. Ownership ☐
c. Evidence of mineralization ☐
d. Geology ☐
e. Proposed exploration method ☐
f. Alternate exploration method ☐
g. Costs ☐
h. _____ ☐

9. Action advised:
a. Obtain information from applicant ☐
b. Refer to Field Team ☒
c. Approval ☐
d. Confer with Field Team ☐
i. Confer with Mr. _____ at _____ AEC office.
e. Disagree with Field Team ☐
f. Suggest alternate plan ☐
g. Request another examination ☐
h. Approval ☐

10. Remarks: (Use back of page if necessary)

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

March 6, 1957

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of application, DMEA 4664, Mid-Continent Uranium Corp., John claim group, Yellow Cat area, Grand County Utah, (uranium).

The applicant proposes to explore for uranium ore deposits on a group of nine mining claims. The proposed work would consist of a total of 7,380 feet of drilling at a total estimated cost of $50,869.

Precisely the same group of John claims was submitted to DMEA by the same applicant in an application, DMEA 4167, dated January 30, 1956. Total estimated cost of the original project was $163,000, which was later revised downward by the applicant to $78,451. In their Report of Field Examination, p. 10, covering DMEA 4167 the field examiners state, "The ore bodies, (in the Yellow Cat district) in many cases, appear to have been localized by festoon bedding, and as a result are rather small and occur in clusters. Experience in drilling this type of environment has shown that one can expect a relatively large number of drill holes to penetrate ore-grade material, but rarely will the production from the deposits equal the indicated reserves computed from the results of the drilling." Fifty-eight holes were drilled on the John group by the Government, only five of which penetrated ore. DMEA 4167 was denied on July 23, 1956.

The John group is nearly adjacent to DMEA 3360, Idm-E723, Mid-Continent Uranium Corp. Of 72 DMEA holes only three penetrated ore. The applicant asserts that his subsequent drilling was successful and affords a reserve estimate of 16,000 tons of ore. The ore has not been mined.

The examining team appear to have made a thorough examination of the property, including the underground openings in connection with DMEA 4167. Consequently, there seems to be little reason for re-examination. Furthermore, the presence of ore deposits in the lower salt Wash Sands in Yellow Cat was known at the time

of the earlier field examination; so that the reasoning that prevailed when DMEA 4167 was denied appears to be just as valid to-day.

The applicant attempts to justify his re-submittal to DMEA of the John claims by saying, p. 1, "recent discoveries of ore deposits in other fourth sandstone channels in the Yellow Cat area foreshadows an economic revival of the district." Such a 'revival' does not seem immediately forthcoming. I recommend, however, that the application be referred to the Field Team for review, for corroboration of recent drilling results and ore reserve status, and for whatever field action is necessary.

W. P. Williams

W. P. Williams

DMEA Form 7
(12-56)

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Date	Surname	Code
3/8	Ellis	700
3/8	Selfridge	130
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3/8	Johnson	100
"	Matthewson	220
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Department of the Interior

DMEA

MAR -8 1957

14X4401(C1) Revolving Fund, Defense Production Act, Interior (Allocated working fund to the Office of the Secy.)

Kulsgaard
Bishop

T E L E T Y P E

ACTING
E. N. HARSHMAN/EXECUTIVE OFFICER
DMEA FIELD TEAM, REGION III
224 NEW CUSTOMHOUSE BUILDING
DENVER 2, COLORADO

REURTT MARCH 6 MID-CONTINENT URANIUM CORP., JOHN GROUP

DOCKET NUMBER IS 4664.

George C. Selfridge
CHAIRMAN, OPERATING COMMITTEE

EWEllis/gla
3-8-57
cc to: Admr.'s Reading File
Operating Committee

8623

Mr. George Selfridge

DATE	INITIALS	CODE
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DN 235 BUR MINES 11-47 3-6-57

CHAIRMAN OPERATING COMMITTEE DMEA

RE DOCKET 4664, 4665 /Q/ URANIUM. FIELD ADVISES THAT MID CONTINENT JOHN GROUP, WILL RECOMMEND DENIAL WITHOUT A FIELD EXAMINATION. YOUR NOTIFICATION OF DOCKET NUMBER ASSIGNMENT DID NOT MAKE CLEAR WHICH NUMBER IS ASSIGNED TO MID CONTINENT JOHN GROUP HENCE THE TWO DOCKET NUMBER DESIGNATIONS. → 4664

E N HARSHMAN
ACTING EXECUTVE OFFICER

Denver Lab.

MAR 6 2 30 PM '57
BUREAU OF MINES
MAIL ROOM
WASHINGTON, D.C.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

February 28, 1957

Mid-Continent Uranium Corp.
204-205 Uranium Center Building
Grand Junction, Colorado

Subject: DMEA-4664

Gentlemen:

Your application for exploration assistance, dated February 23, 1957 submitted to our office at Denver, Colorado has been assigned Docket Number DMEA-4664 and referred to the Rare & Miscellaneous Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to: Region III
Code 700

6416

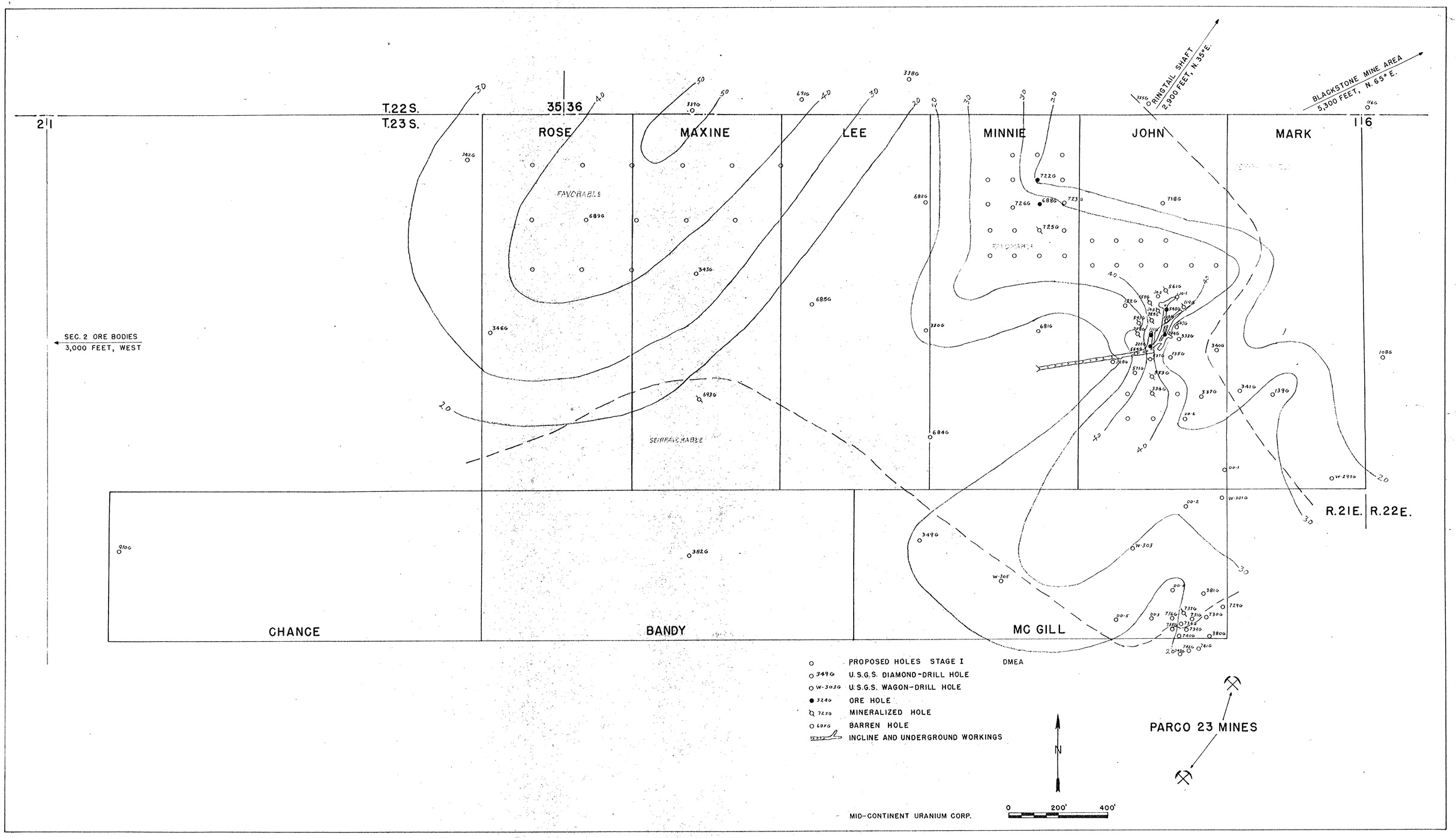

FIG. 4 JOHN GROUP, SHOWING PROPOSED EXPLORATION, YELLOW CAT AREA, UTAH